

# ORGAMITES®

## MIGHTY EDUCATION PROGRAMME

DISCOVER MORE AT [ORGAMITES.CO.ZA](http://ORGAMITES.CO.ZA)

### 5. PRESENTATION NOTES

## TOOLKIT 1: MIGHTY ME

ALL ABOUT ORGANS



IN PARTNERSHIP WITH

**live life**  
**give life**

**ONASSIS**  
**FOUNDATION**

**SATS**

**tell**  
Transplant Education for Living Organs

**Giving to help others**

**Canadian Blood Services**  
BLOOD PLASMA STEM CELLS ORGANS & TISSUES

**Organ Donation Northern Ireland**

**HSC** Public Health Agency

**BTS**  
British Transplantation Society

**ESOT**

# LESSON PRESENTATION SLIDES

## EXPRESS VERSION

**ORGANITES**  
MULTI-EDUCATION PROGRAMME  
TOOKKIT 1: MIGHTY ME  
ALL ABOUT ORGANS  
EXPRESS VERSION

1. Brain  
2. Heart  
3. Lungs  
4. Liver  
5. Small Bowel

They are our vital organs:

Did you know?  
These amazing organs do jobs that are essential for us to live!  
Do you know what they're called?

They're called the mighty organs (also known as the Organites)...

These are the organs most needed for organ donations and transplants:

Did you know?  
The liver is the largest organ in the body and is essential for many of our body's functions.  
One organ donor can save up to three lives and improve the lives of many more!

Let's meet our mighty organs...

Meet Captain Marrow!  
He's the leader of the mighty organs and is in charge of making sure they all work together to keep you healthy!

Meet Heart!  
Wherever you are, Heart is always there to pump blood around your body to give it the oxygen it needs to stay healthy!

Meet the Lungs!  
These are the organs you breathe in and out with. They're like two big balloons that help you breathe!

Meet Small Bowel!  
It's a long tube that helps you digest food and absorb nutrients. It's like a long, winding road that takes food from your mouth to your stomach and then to your small intestine.

Meet Pancreas!  
This small organ is very important. It helps you digest food and also produces insulin, which helps your body use sugar for energy.

Meet Liver!  
The liver is the largest organ in the body and is essential for many of our body's functions. It helps you digest food and also produces bile, which helps you absorb nutrients from food.

Meet Kidney!  
These are the organs that filter out waste from your blood and keep you healthy. They're like two little bean-shaped organs that work together to keep you healthy.

Meet Eye!  
This is the organ that lets you see. It's a very important organ that helps you see the world around you.

You organs are truly mighty!

Let's do a quick recap!  
1. How many organs are there in total?  
2. Can you name your mighty organs?  
3. What are the organs most needed for organ donations and transplants?

So what have we learnt today?  
We all made up of many parts. We need all of our organs to stay healthy. We're all the same inside. And in the end, it's what's on the inside that counts!

What next?  
1. Show Your Mighty Parts (all the organs)  
2. Show Your Organs  
3. Show Your Organs  
4. Show Your Organs  
5. Show Your Organs

**IT'S WHAT'S INSIDE THAT COUNTS!**

**ORGANITES**

## FULL VERSION

**ORGANITES**  
MULTI-EDUCATION PROGRAMME  
TOOKKIT 1: MIGHTY ME  
ALL ABOUT ORGANS  
FULL VERSION

1. Brain  
2. Heart  
3. Lungs  
4. Liver  
5. Small Bowel

They are our vital organs:

Did you know?  
These amazing organs do jobs that are essential for us to live!  
Do you know what they're called?

They're called the mighty organs (also known as the Organites)...

These are the organs most needed for organ donations and transplants:

Did you know?  
The liver is the largest organ in the body and is essential for many of our body's functions.  
One organ donor can save up to three lives and improve the lives of many more!

Let's meet our mighty organs...

Meet Captain Marrow!  
He's the leader of the mighty organs and is in charge of making sure they all work together to keep you healthy!

Where is Captain Marrow?  
Your liver is the largest organ in the body and is essential for many of our body's functions. It's located in the upper right side of your abdomen.

Meet the Lungs!  
These are the organs you breathe in and out with. They're like two big balloons that help you breathe.

Where are the Lungs?  
The lungs are located in the upper chest area, on either side of the heart.

Meet Small Bowel!  
It's a long tube that helps you digest food and absorb nutrients. It's like a long, winding road that takes food from your mouth to your stomach and then to your small intestine.

Where is Small Bowel?  
The small intestine is located in the upper abdomen, below the stomach.

Meet Pancreas!  
This small organ is very important. It helps you digest food and also produces insulin, which helps your body use sugar for energy.

Where is Pancreas?  
The pancreas is located in the upper abdomen, behind the stomach.

Meet Liver!  
The liver is the largest organ in the body and is essential for many of our body's functions. It helps you digest food and also produces bile, which helps you absorb nutrients from food.

Where is Liver?  
The liver is located in the upper right side of your abdomen.

Meet Kidney!  
These are the organs that filter out waste from your blood and keep you healthy. They're like two little bean-shaped organs that work together to keep you healthy.

Where is Kidney?  
The kidneys are located in the upper back, on either side of the spine.

Meet Eye!  
This is the organ that lets you see. It's a very important organ that helps you see the world around you.

Where is Eye?  
The eyes are located in the front of your face.

Your organs are truly mighty, but do you know...

What is a Living Donor?  
A living donor is someone who donates an organ to someone who needs it. This can be a family member, a friend, or even a stranger.

What else can Living Donors donate?  
Living donors can donate a variety of organs, including kidneys, livers, and lungs. They can also donate parts of organs, such as a portion of a liver or a portion of a kidney.

Let's do a quick recap!  
1. How many organs are there in total?  
2. Can you name your mighty organs?  
3. What are the organs most needed for organ donations and transplants?

So what have we learnt today?  
We all made up of many parts. We need all of our organs to stay healthy. We're all the same inside. And in the end, it's what's on the inside that counts!

What next?  
1. Show Your Mighty Parts (all the organs)  
2. Show Your Organs  
3. Show Your Organs  
4. Show Your Organs  
5. Show Your Organs

**IT'S WHAT'S INSIDE THAT COUNTS!**

**ORGANITES**

# HOW TO USE THIS RESOURCE

These are the supporting **Presentation Notes (PDF 5)** to the **Lesson Presentations (PDF 3 & 4)** for **Toolkit 1 'Mighty Me'**. They provide a treasure trove of fascinating facts and extra ideas to make these lessons the kind that no kid will ever forget. Don't forget to also refer to the **'Teacher Overview (PDF 1)'** for more additional resources - including classroom activities and take-home packs.

As shown on the previous page, there are two versions of the 'Mighty Me Lesson Presentation' to choose from: The **EXPRESS VERSION (PDF 3)** is perfect for younger children (Foundation Phase, ages 5 to 7) and can be covered in a single lesson. The **FULL VERSION (PDF 4)** is ideal for all other age groups, and includes more insights about each organ and how to care for them. If this version is supplemented by the **'Object Lessons (PDF 7)'** resource, it can be spread over several lessons. Additional case studies can be found in the **'Additional Teacher Resources (PDF 6)'** - allowing the concept covered to be grounded in realistic stories that highlight the difference organ donation really makes in some kids' lives.

## COVER OF EACH VERSION (SLIDE 1)



Please note: The below notes refer to the **FULL VERSION** slides. However, the content is easy to adapt should you wish to use the shorter **EXPRESS VERSION**.

## YOU'RE MADE OF SOME MIGHTY STUFF! (SLIDES 2-7)

We begin by explaining to kids why it's important to know what they're made of. After all, you can't really look after something you don't understand, or fully appreciate. From slide 2-4, the topic of organs is introduced. To make the lesson as interactive and participative as possible, pause whenever there is a question on the slide to ask your class what they think, making time to hear several answers and opinions.

If you had a fancy car you wanted to take good care of, you'd first need to work out what's going on under its bonnet...

Our bodies are a bit like that too.

If we want to take good care of ourselves, we first need to take a good look under the hood and find out just how mighty we are on the inside!

Let's go!

Let's get to know our organs!

Organs are the different working parts inside us all.

Can you guess how many organs you have?

Slides 5-7 then briefly introduce our vital organs. These are the organs vital for survival. They are the heart, brain, kidneys, liver, and lungs. If any of these five organs stops functioning, without medical intervention, a person's life will stop too.

Did you guess right? How many can you name?

78

There are five organs we really can't live without.

Do you know what they're called?

5

They are our vital organs

1. Brain
2. At least one lung
3. Heart
4. Liver
5. At least one kidney

# THE MIGHTY ORGANS, ORGAN DONATION & TRANSPLANTATION (SLIDES 8–11)

Let's now introduce the Organites. They are the 'mighty organs' because they represent the organs most needed for organ donation and transplantation. To increase the level of interaction, you could ask your class:

- Which of the vital organs are also mighty organs? (Answer: Lungs, Liver, Kidneys, Heart)
- Which vital organ is not a mighty organ? (Answer: Brain)
- Why do you think that is?


Next, we briefly elaborate on the concepts of organ donation and transplantation, and the need for it within South Africa.

Transplantation is the actual process whereby a doctor moves an organ from one person to another. This happens only if the person receiving a new organ really needs one and could die if they don't get it. That's why organ donors are a little like superheroes... when someone chooses to give their organs to someone else, when they no longer need them, they're really saving lives!

**Did you know?**

There's another group of organs that are not only important but move-able too!


*Do you know what they're called?*

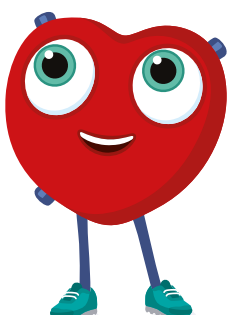


**They're called the mighty organs (also known as the Organites)**

**The mighty organs are:**

1. Bone (Captain Marrow)
2. Heart
3. Liver
4. Kidney
5. Lungs (Left & Right)
6. Eye (Cornea)
7. Small Bowel (or Small Intestine)
8. Pancreas

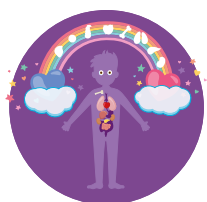




**These are the organs most needed for organ donations and transplantations.**

This means that if a person's mighty organs stop working or aren't working well, they can be replaced with new ones from another person (called an **organ donor**).


The operation that makes this possible is called an **organ transplant**.



**Did you know?**

There are around 8,000 people on the organ transplant waiting list in South Africa right now!

One organ donor can save up to nine lives and improve the lives of many more!

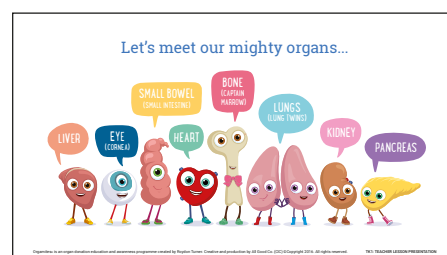


## MEET YOUR MIGHTY ORGANS (SLIDE 12)

For each of the mighty organs that follow, the slides introduce the character, highlight its main function, elaborate on where in the body it is located, offer a fascinating 'Did you know?' fact, as well as a top tip to help keep that organ in tip-top shape.

Along with the info on the slide, you may want to ask your students to guess where each organ is located, and what they think that organ's main job is, before revealing the info on the slide.

**Be sure to check out our awesome Object Lessons (PDF 7) to take your lessons from good to great. With one Object Lesson per mighty organ, you can make these facts come alive in real-time!**



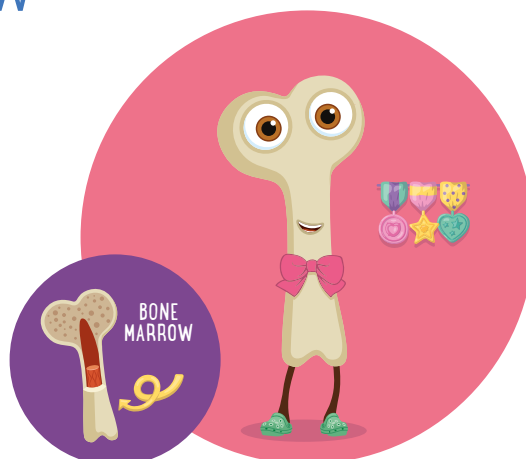


## MORE ABOUT CAPTAIN MARROW (SLIDES 13–15)

*To really bring this mighty organ to life for your class, check out our **Mighty Marrow Object Lesson**.*

### **More fascinating facts about our bones and Captain Marrow:**

Unlike the other organs, Captain Marrow represents your bone marrow and the stem cells inside it. His main job is to make the billions of blood cells you need to survive. Bone marrow is mostly found in the flat bones such as the hip bone, breastbone, skull, ribs, vertebrae and shoulder blades. It is also found at the end of the long upper arm bone (the humerus) and the thigh bone (the femur).



### **From 300 to 206 bones!**

You're born with approximately 300 bones, which merge to about 206 by the time you're a grown-up.

### **7 years in the making**

At birth all your bone marrow is red. It takes 7 years for half of it to be converted to yellow marrow.

### **You carry an extra 2.5 kilograms (5.5 pounds) every day**

That's how much bone marrow you have inside of you which you carry around all day!

### **259 billion red blood cells**

Your marrow makes about 2 to 3 million red blood cells every second, and about 173 to 259 billion red blood cells every day!

### **Bone marrow (and stem cells) can be transplanted**

Doctors take healthy stem cells from a living donor and put them into the recipient's bloodstream. The donor's cells then help another person's body grow healthy red and white blood cells and platelets. When a person needs a bone marrow transplant, they can't just take anybody's marrow, they have to find the perfect match. A transplant like this can save the life of someone battling leukemia, lymphoma, or another blood cancer. In fact, over 80 serious diseases can be treated from these super stem cells!

*For extra engagement, ask your class to share with a classmate which of these health tips they'd like to try this week. You could also ask them to share what they appreciate most about this particular mighty organ.*

### **Additional health tips:**

- Eat protein every day. Eat food like lean meat, fish (especially sardines and tuna), beans, lentils, nuts, milk and eggs. The amino acids in these protein-rich foods form the building blocks for our own healthy cells.
- Pump up on iron. Eating iron-rich foods is one of the best gifts you can give Captain Marrow. This helps him to make new red blood cells (which are loaded with iron). Vitamins like B9, B12 and folic acid are important too.
- Run! Running isn't just good for your heart, it can improve your bone strength and bone marrow too.

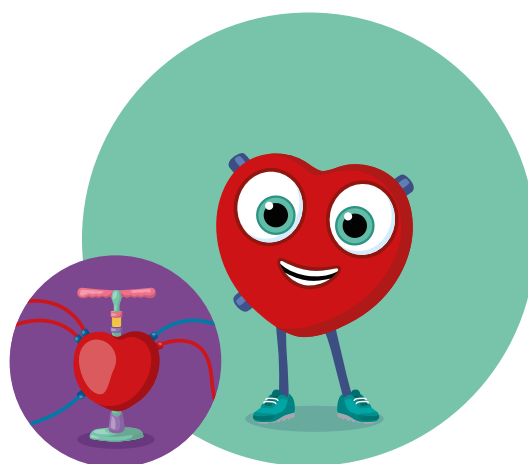
# MORE ABOUT HEART

## (SLIDES 16–18)

*To really bring this mighty organ to life for your class, check out our **Mighty Heart Object Lesson (PDF 7)**.*

### **More fascinating facts about our hearts:**

The heart has four chambers, two on the right and two on the left. The right side of the heart pumps oxygen-poor blood to the lungs, where it picks up oxygen and gets rid of carbon dioxide. The left side of the heart then pumps oxygen-rich blood returning from the lungs to the rest of your body, where it delivers oxygen and other nutrients to your cells.



### **7,570 litres (2,000 gallons) of blood pumping**

That's how much blood your heart pumps every day, that's 4 tablespoons of blood every beat!

### **96,560 kilometres (60,000 miles) of blood vessels**

If you took out all your blood vessels and laid them out in a line – which you absolutely, positively, definitely should NOT do – they would stretch around the entire world more than twice!

### **No two hearts are alike**

Every heart is as unique in appearance as its owner's fingerprint! Still, you can't tell which heart belongs to which person just by looking at it. So in the most important sense, it's what's inside that truly counts!

### **The world's smallest and biggest hearts**

The world's smallest heart is in a tiny insect called a fairyfly, which is only 0.13 millimeters long. Fairyflies are so tiny that you need a magnifying glass to see them! The blue whale has the largest heart, weighing in at over 680kg (1,500 pounds), it's the size of a Mini car!

### **Heart can be donated and transplanted**

Every day, someone in the world gets a heart transplant. A heart transplant gives the healthy heart from a donor who has passed away, to another person (called the recipient) whose own heart isn't working properly. It's the ultimate act of kindness – allowing love and life to live on.

*For extra engagement, ask your class to share with a classmate which of these health tips they'd like to try this week. You could also ask them to share what they appreciate most about this particular mighty organ.*

### **Additional health tips:**

- To keep your heart happy and healthy – eat lots of heart-friendly foods, like leafy greens, omega-3-rich fish, legumes, nuts, fresh fruit and berries.
- Up those beats. Regular exercise is the single best thing you can do to take care of your heart and keep it beating stronger for longer.
- Stress less. It's not just diet and exercise that lead to a happy heart – it's happy feelings too! When you're very worried and stressed, your heart gets a bit stressed too!

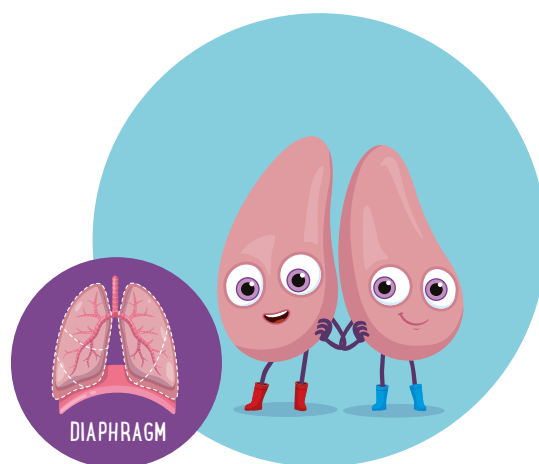
# MORE ABOUT THE LUNGS

## (SLIDES 19–21)

*To really bring this mighty organ to life for your class, check out our **Mighty Lungs Object Lesson**.*

### More fascinating facts about our lungs:

Your left lung is a bit smaller than the right one because it needs to make space for your heart. Breathing in gives our bodies the oxygen we need, and breathing out gets rid of too much CO<sub>2</sub>, which isn't good for us. Your brain helps control your breathing. It has a special part that always checks if you have enough oxygen and not too much CO<sub>2</sub>, making sure you stay healthy.



### 3 hundred million reasons to love tennis!

That's how many alveoli (tiny balloon-like structures) are in each of your lungs! If you were to spread all your alveoli out on the ground – yours could cover the entire surface of a tennis court!

### 16 breaths a minute

That's how many breaths the average person takes every minute, women and children tend to take a little more.

### Just 5% oxygen is all you need

When you breathe in, your body uses just 5% of the oxygen you've inhaled.

### 70% full

Even at maximum exercise intensity, your lungs only use about 70% of their lung's capacity.

### Bottom burps!

The Fitzroy River turtle species can breathe through their bottoms - now that's a funny party trick!

### Lungs can be donated and transplanted

If a person has a lung disease or a damaged lung, a lung transplant can dramatically improve (and even save) their lives. During a lung transplant, one or both lungs are replaced by lungs from a donor.

*For extra engagement, ask your class to share with a classmate which of these health tips they'd like to try this week. You could also ask them to share what they appreciate most about this particular mighty organ.*

### Additional health tips:

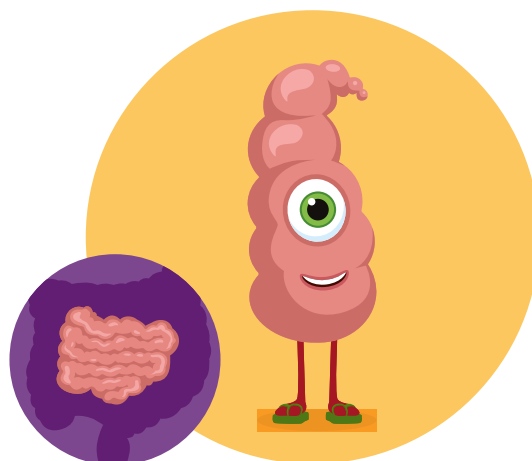
- Breathe deeper. This isn't just good for your lungs, it's especially good for your brain too. Slow, deep breathing stimulates the vagus nerve, which makes us feel calmer, more focused and happier too.
- Fight for fresh air. Spending too much time in places with no fresh air is no good for your lungs. As much as is possible, try to avoid too much time where there's heavy traffic pollution, chemical fumes, smoke, and secondhand cigarette smoke.
- Get a little breathless. Moderate exercise which leaves you feeling breathless, will improve your lung capacity and overall health.

## MORE ABOUT SMALL BOWEL (SMALL INTESTINE) SLIDES 22–24

*To really bring this mighty organ to life for your class, check out our **Mighty Small Bowel Object Lesson**.*

### More fascinating facts about our small bowel:

Your small bowel is a long, tube-like organ that carries food from your stomach to your large intestine, sucking up (or absorbing) 90% of your body's nutrients along the way. It uses enzymes and other substances to break down the food into small pieces that can then be absorbed into the bloodstream and sent to each cell to use for energy.



### Your gut is alive with tiny living things

There are 10 times as many microbes (tiny living things) as there are cells in your body!

### You have a second brain!

Your gut, also called the 'second brain,' can keep working even without your actual brain. But it prefers to stay in constant communication with your (head) brain through the vagus nerve.

### Feeling happy or sleepy?

Your gut has more neurotransmitters than the brain! These are molecules that affect how you feel and act. Your gastrointestinal tract also contains most of your serotonin (which is the hormone that makes you feel happy and that helps you to sleep well).

### 3 to 21 poops!

Most people poop between 3 to 21 times a week. The frequency of bowel movements varies from person to person and depends on factors like diet and activity level.

### Small bowel can be donated and transplanted

Even though the stomach and large bowel are important, only the small bowel can be transplanted. That's because you don't actually need the other two to survive! But you do need your small bowel, it's the part of your body that absorbs all the nutrients from your food and helps keep you strong and healthy.

*For extra engagement, ask your class to share with a classmate which of these health tips they'd like to try this week. You could also ask them to share what they appreciate most about this particular mighty organ.*

### Additional health tips:

- Keep your small bowel smiling by eating healthy meals packed with nutrients, fibre and fresh ingredients. And drink enough water too—otherwise you could get constipated.
- Call in the 'pros'. Probiotics are contain good bacteria – the theory is they are the ones that help to strengthen your immune system and keep your gut happy and healthy. Yoghurt, kimchi and kefir are all healthy foods that have some good bacteria in them.
- Stress less and sleep more. When you worry, your guts receive an influx of adrenalin. This hormone shuts down our digestion and can cause bloating. Getting enough sleep also aids in your digestion.



# MORE ABOUT PANCREAS

## (SLIDES 25–27)

*To really bring this mighty organ to life for your class, check out our **Mighty Pancreas Object Lesson**.*

### More fascinating facts about our pancreas:

An important part of your body's digestive system, the pancreas produces essential digestive juices and makes sure your blood sugar levels are stable so that you have energy throughout the day. When you eat, the pancreas releases enzymes into your small bowel, where they help to break down the food into small pieces that your body can use for energy.



### 2 in 1 organs

Your mighty pancreas is really two separate glands inside the same organ. The exocrine gland makes enzymes to break down fats and proteins in the food we eat, while the endocrine gland makes the hormones needed to stabilise your blood sugar levels.

### 50 times the sugar intake

Over the last 300 years, the average person's intake of sugar has skyrocketed from nearly 2kg a year to almost 100kg! That's fifty times more sugar in our diets today.

### The shock of it all!

Until the 19th century, doctors thought the pancreas was just a shock absorber to protect the stomach!

### Your pancreas makes two helpers

They're called insulin and glucagon, and they keep sugar in our blood just right. Insulin helps when there's too much sugar, and glucagon helps when there's not enough. But, too much sugar is bad for us. It can make the pancreas tired and stop making insulin. Then, our blood sugar can go very high or very low, which is not good and can make us sick with something called diabetes.

### Pancreas can be donated and transplanted

This is mostly done for people with a serious type of diabetes called Type 1 Diabetes. Pancreas transplants are not done as often as kidney or liver transplants. Usually, doctors transplant a pancreas and a kidney at the same time, making it a very tricky operation too.

*For extra engagement, ask your class to share with a classmate which of these health tips they'd like to try this week. You could also ask them to share what they appreciate most about this particular mighty organ.*

### Additional health tips:

- Go easy on the sweet stuff. Don't eat too many sugary, refined foods.
- Become a sugar detective. Look out for sneaky names for sugars in snacks, drinks and foods you eat.
- Eat more fresh, healthy food. To get your pancreas healthy, eat foods that are rich in protein, low in animal fats, and that contain loads of antioxidants. Lean meats, beans and lentils, clear soups, and dairy alternatives (such as flax milk and almond milk) are all easy for your pancreas to process!

# MORE ABOUT LIVER

## (SLIDES 28–30)

*To really bring this mighty organ to life for your class, check out our **Mighty Liver Object Lesson (PDF 7)**.*

### More fascinating facts about our livers:

An essential part of your body's digestive system, this mighty organ is the second largest organ in your body (after your skin) and one of the busiest: with over 500 jobs to do. One of the main jobs of the liver is to help your body digest food. When you eat, your liver helps to break down the food so your body can use it for energy. It does this by producing digestive enzymes and bile.



### 1.5 litres (0.4 gallons) every minute!

The only organ that has a dual blood supply from both the portal vein and the hepatic artery, that's how much blood is pumped through your liver every single minute!

### 1 thousand lobules

Your liver consists of 2 main lobes, made up of 8 segments each, with 1,000 lobules (small lobes) in each of those. Like a sieve, anything that you eat or drink (after being absorbed by the small bowel) gets filtered through these lobules—and any harmful toxins are swiftly removed from your system.

### Liver works well with Pancreas

Your mighty liver works hard with your pancreas to maintain healthy levels of sugar in your blood. It does this by storing sugar when you have too much, and releasing it when you need it for energy. This helps to keep your blood sugar levels stable.

### 15 days to grow back

If you lost (or donated) a quarter of your liver, it would 'regrow' to its original size (and function just as well) in 15 days or less!

### Liver can be donated and transplanted

Your liver has the amazing ability to regenerate itself, making transplants from living donors possible. When people donate half their liver, the remaining part of their liver regenerates the part that was removed.

*For extra engagement, ask your class to share with a classmate which of these health tips they'd like to try this week. You could also ask them to share what they appreciate most about this particular mighty organ.*

### Additional health tips:

- Get enough Vitamin D. Apart from playing outdoors in the sunshine, fortified orange juice, salmon, sardines and beef liver are all great sources of Vitamin D.
- Eat and live clean. Livers can be damaged if a person drinks too much alcohol or takes dodgy drugs. Eating too much greasy, processed, unhealthy food is also not good for your liver.
- Eat the foods your liver loves, like broccoli, cabbage, cauliflower, kale (a mix between spinach and cabbage), nuts, grapes and berries.

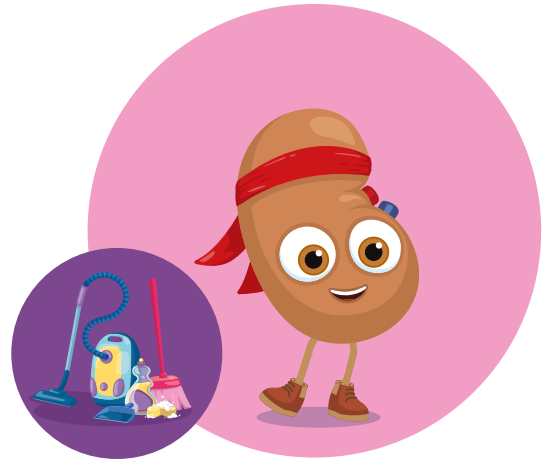
# MORE ABOUT THE KIDNEYS

## (SLIDES 31–33)

*To really bring this mighty organ to life for your class, check out our **Mighty Kidneys Object**.*

### More fascinating facts about our kidneys:

Even though the kidney only accounts for 0.5% of our body's weight, it receives more blood than all the other organs (except the liver). Your blood carries waste products and other things that your body doesn't need or want, and the kidneys help to get rid of them. They do this by filtering your blood and creating urine, which is a waste product that your body then sends to your bladder to get wee'd out later!



### Filter mania!

Inside each of your kidneys are a million little filters called nephrons. Every drop of blood in your body gets filtered through your kidneys every 30 minutes, which is about 50 times every day.

### A 16 kilometres (10 mile) stretch

Stretched out from end to end, your tiny nephrons from both kidneys would measure 40 laps around an Olympic running track, but let's make sure this never ever happens and that they stay safely inside you!

### Half a cup a minute

Your mighty kidneys clean about 125ml of blood every minute! They scoop up wastes and extra water to make wee (also known as urine), which then travels to your bladder, and waits until it's time for a number 1!

### Fill up the tanks of 10 cars

Your kidneys also regulate the amount of water in your body, they do this by controlling how much wee, or urine, your body makes. Over one year, it's enough to fill the tanks of ten cars!

### You can donate a kidney while you're still alive and kicking!

The most commonly donated organ by living donors is a kidney—usually because someone the donor knows and matches, with is in desperate need of a healthy one.

*For extra engagement, ask your class to share with a classmate which of these health tips they'd like to try this week. You could also ask them to share what they appreciate most about this particular mighty organ.*

### Additional health tips:

- Drink at least 6 to 8 glasses of water every day. Along with drinking lots of water, take lots of bathroom breaks too. It's really not healthy to 'hold it in' as this stretches your bladder and can later lead to you really not being able to 'hold it in' at all!
- Keep moving. Regular exercise is good for all sorts of organs – including your kidneys!
- Control your blood sugar. When your body's cells can't use all the sugar in your blood, your kidneys are forced to work extra hard. Over many years, this can damage your kidneys.

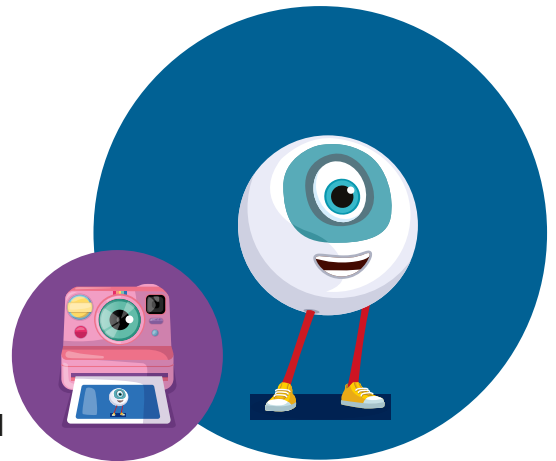
# MORE ABOUT THE EYES

## (SLIDES 34–36)

*To really bring this mighty organ to life for your class, check out our **Mighty Eye Object Lesson**.*

### More fascinating facts about our eyes:

There are over 2 million working parts in just one of your eyes! The eye is one of the most complex organs in the body, second only to the brain. You only see a sixth of your eye, and it stays roughly the same size throughout your life, unlike your nose and ears that keep growing.



### 10 million colours and 576 megapixels

That's how many different colours your eyes can see. Isn't that just brilliant? The resolution quality of your eye, compared to that of a camera is pretty insane too!

### The whites of your eyes!

The outer part of the eye is called the sclera. This is the white part that you can see when you look at someone's eye. It's a tough, protective layer that keeps the eye safe from harm.

### Window to the world

The cornea is a clear, curved part at the front of the eye that helps focus light. It's like a window that lets light in but keeps dirt, germs, and harmful UV rays out. It's the only living part of the body that doesn't have blood vessels. Instead, it gets oxygen from the air around it.

### You have a black hole in your eye

The iris (the coloured part of your eye) is a muscle that can change the size of the pupil to control the light. The pupil isn't just a dot, it's more like a hole that widens or contracts to let just the right amount of light in.

### Shark eye swap!

A shark's cornea is very similar to a human eye — so similar that shark corneas are sometimes used in human eye surgery.

### Your cornea and sclera can be donated and transplanted!

The cornea and sclera are the only parts of the eye that can be donated and transplanted, it's never the whole eye. When someone donates their cornea, it can help a person with damaged vision see again. It's like giving the gift of sight!

*For extra engagement, ask your class to share with a classmate which of these health tips they'd like to try this week. You could also ask them to share what they appreciate most about this particular mighty organ.*

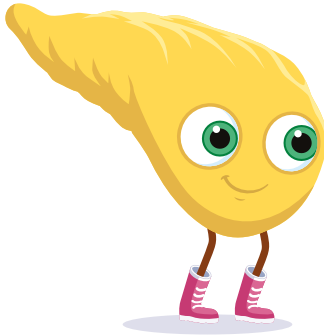
### Additional health tips:

- Give your eyes plenty of rest by switching off from screens regularly.
- Fix your focus. Try staring at objects far away, and then up close, every 20 minutes, throughout the day.
- Give your eyeballs a regular workout: keep your head fixed and look up, then to each side, then down.

# LIVING DONORS

## (SLIDES 37–39)

Having been introduced to the most needed and commonly donated organs and tissues, these slides highlight which of the Organites can be donated by living donors.



**What is a Living Donor?**

Anyone can choose to donate their mighty organs after they die, but some things can be donated while still alive. Living Donors are usually grown-ups. They can donate...

**A kidney:** The most common organ donated by Living Donors— usually because someone the donor knows and matches with really needs one.

**Bone marrow:** If a living person wants to donate their bone marrow, there is a special donation register they can sign up to.

**What else can Living Donor's donate?**

**Liver:** With its amazing ability to regrow, a part of someone's healthy liver can be donated. Both the organ donor and recipient will soon have a healthy, whole liver!

**Blood and plasma:** Giving blood and plasma is easy and safe. Most people aged between 17 and 65 can donate blood or plasma. Plasma is used to make lots of different medicines to help sick people.

## REFLECTION TIME (SLIDES 40–41)

**Talking about organ donation helps us to honour each another's choices.**

No matter which pace you choose, be sure to allocate a little time to recap and reflect on what has been covered in the lesson. Let students share some of their own thoughts and impressions. When teaching about organ donation, focus on the positivity of 'giving a gift', and the difference a transplant can make to a recipient's life. Try to keep the conversation light, positive and non-judgmental.

**Why voice your choice?** Because sometimes a person will have chosen to donate their organs but their family doesn't know about their choice, and so their organs don't end up being donated. Only a third of adults have shared their organ donation choice with their family - and far fewer kids! That's why it's really important for people to continue to talk about their choice with those closest to them, so that their family can honour that choice.

To help kick-start the conversation, our Family Resource (available as part of this toolkit) is the ideal take-home for all parents and guardians of students to receive on the day of this lesson or at the start of the lesson series.

**Let's do a quick recap!**

1. Can you name your vital organs?
2. Can you name your mighty organs?
3. Why might someone choose to donate their organs?
4. Why might someone choose not to donate their organs?
5. Why is it important to talk with your family about your choices around organ donation?

**So what have we learnt today?**

We are all made up of some pretty mighty organs!

We're all the same inside!

And in the end, it's what's on the inside that really counts!

## NEXT STEPS (SLIDES 42–43)

Now equipped with lots of inspiring insights about their organs and organ donation, these slides aim to offer students a clear, simple and practical way forward.

The Mighty Pledge is completely optional. It is a call to all to be kinder to ourselves, other people and the planet we all share. Consider making the Mighty Pledge together, and even displaying it somewhere in your classroom.

**What next?**

1. Know Your Mighty Parts (off by heart)
2. Know Your Options
3. Share Your Choice
4. Take The Mighty Pledge
5. Be Your Mighty Self!

**ORGANITES**

Our world is precious, and together we can protect it. Let's all pledge to be kinder to ourselves, other people and the planet we all share.

We pledge to be kinder to ourselves, other people and the planet we all share. We pledge to be kinder to ourselves, other people and the planet we all share. We pledge to be kinder to ourselves, other people and the planet we all share.



## WHAT NEXT?

**Teachers have access to a variety of 'Additional Teacher Resources' to enhance the learning experience and drive the message home:** Films, Colouring-In Sheets, Classroom Posters, Case Studies, fun activities and more! Choose any or all of them, print them out or upload them onto your whiteboard.

### Object Lessons: Toolkit 1 (PDF 7)

To help kids really appreciate their mighty organs (and remember why and how they work, for the rest of time) we've created a series of fun and interactive object lessons (one for each of the mighty organs).

### Family Resources (PDF 2)

To get families talking more about what really matters, please send this important 'booklet' or PDF, to all parents and guardians on the same day you introduce the Organites to your class (print it or email it to them).

### Have you discovered Toolkits 2 and 3?

Although self-standing, our toolkits sequentially build upon one another. **Toolkit 2: Mighty Habits**, offers the best information available on how to practically form the healthy habits that lead to a healthy, happy and long life (at any age). **Toolkit 3: Mighty Kind**, seeks to show people how powerful their small, individual choices can be—inspiring them to change the world through kindness.






### Got questions or ready to share your Organites art?

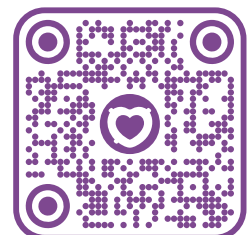
For any questions, to share your art with us, to enquire about a Golden Heart Award for your school, or to download free Organites resources, visit: [Organites.co.za](https://Organites.co.za)

## YOUR INPUT MAKES A BIG IMPACT!

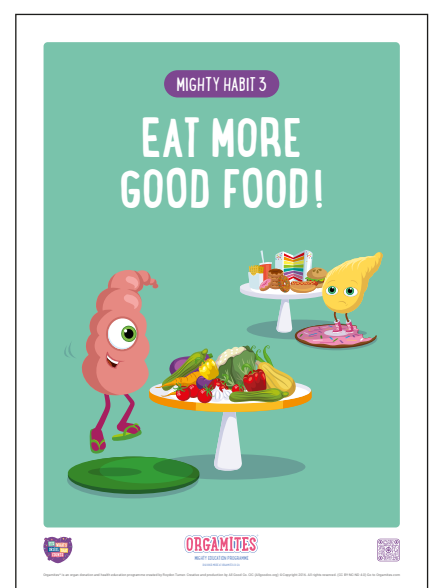
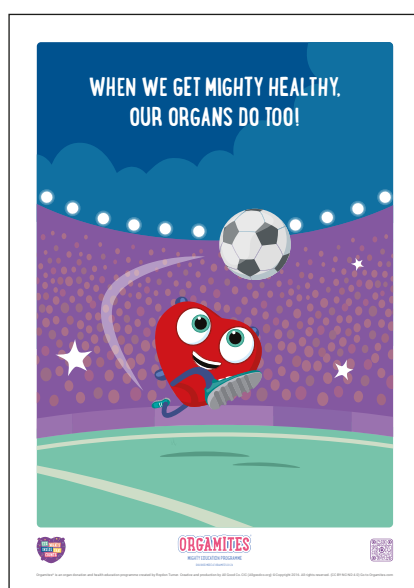
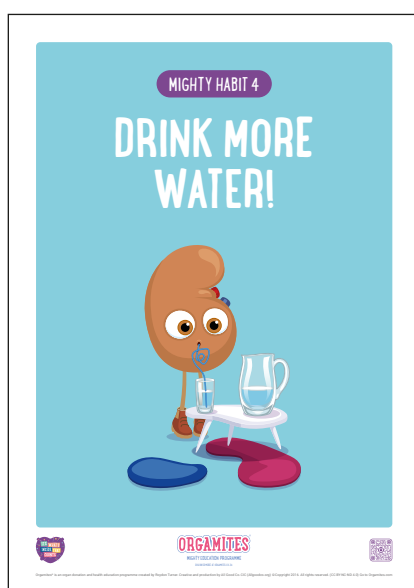
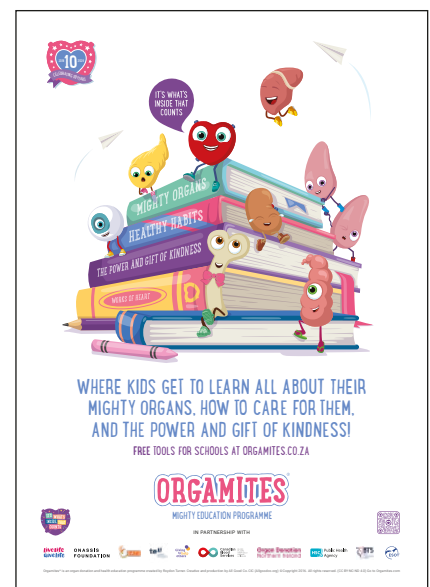
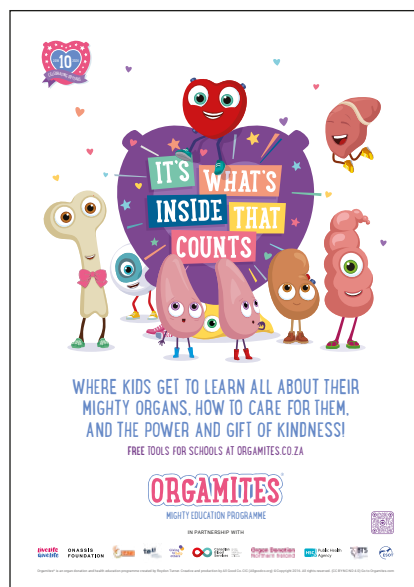
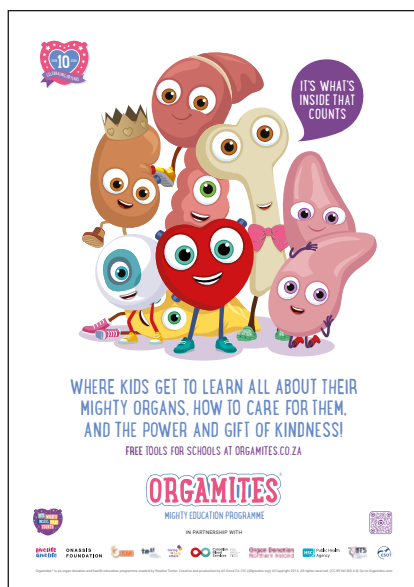
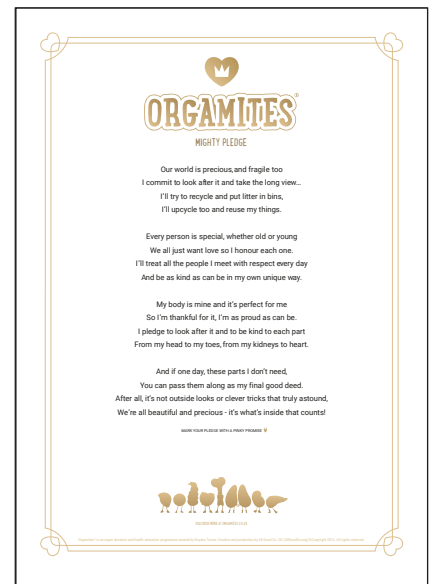
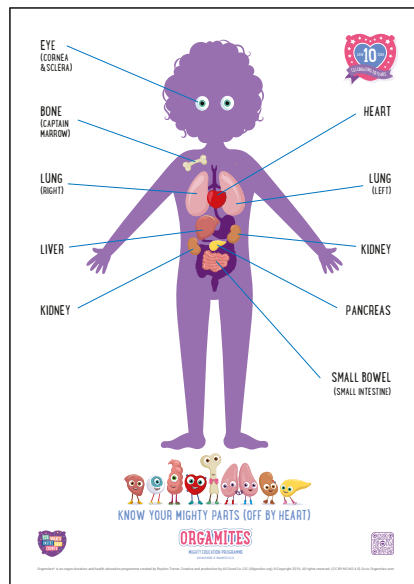
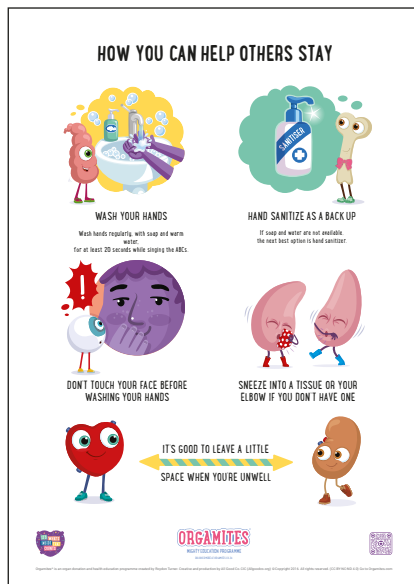
If you've introduced the Organites to your classroom, we'd love to know how it's going. Please use our feedback form on the 'Resources Hub' page on our website, and please encourage as many other teachers, students and parents to do so too. Don't forget to...



-  1. Know Your Mighty Parts (off by heart)
-  2. Know Your Options
-  3. Share Your Choice
-  4. Take The Mighty Pledge
-  5. Be Your Mighty Self!

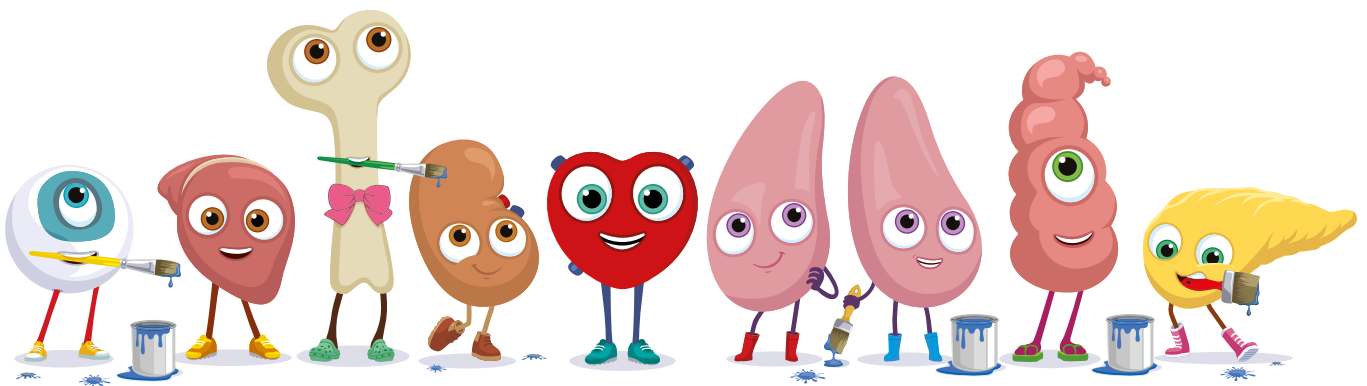


[Organites.co.za](https://Organites.co.za)



**DOWNLOAD YOUR FREE POSTERS AT [ORGAMITES.CO.ZA](http://ORGAMITES.CO.ZA)**

# IT'S WHAT'S INSIDE THAT COUNTS!



**All Good Co.**

A COMMUNITY INTEREST COMPANY

It's all good at [AllGoodCo.org](http://AllGoodCo.org)